

WATER QUALITY STANDARDS; ESTABLISHMENT OF A NUMERIC CRITERION FOR SELENIUM FOR THE STATE OF CALIFORNIA

**Proposed Rule in Federal Register
Thursday, December 13, 2018**

Proposed CA Se Rule: Agenda / Introductions

DRAFT AGENDA

- 1. Introductions**
- 2. Scope Of Proposed Rule**
- 3. Criterion Elements**
- 4. Proposed Options And Request For Comment**
- 5. Comment Period**
- 6. Public Hearings**
- 7. Next Steps/ ESA Next Steps**

Proposed CA Se Rule: Scope of Proposed Rule

Proposal would:

→ Amend the CTR Only

(NTR Se criteria will not change: Salt & Mud Sloughs; Lower SJR; SF Estuary)

→ Replace Current Se Chronic *Freshwater* Criterion (5 µg/L)

→ Apply To Estuarine Waters (Except SF Estuary)

(CTR provision: more stringent of FW & SW WQC applies)

→ NOT Apply where CA Site-Specific Objectives (SSOs) Exist

(CA SSOs: Salt Slough & constructed/reconstructed water supply channels for Grassland watershed; and tributaries to the Salton Sea)

3

Proposed CA Se Rule: Criterion Elements

Media Type	Bird Tissue	Fish Tissue ¹		Water Column ⁴	
Criterion Element	Bird Egg ²	Egg-Ovary ²	Fish Whole Body or Muscle ³	Monthly Average Exposure	Intermittent Exposure ⁵
Magnitude	11.2 mg/kg dw	15.1 mg/kg dw	8.5 mg/kg dw whole body or 11.3 mg/kg dw muscle (skinless, boneless file)	Derived on a site-specific basis using the methodology described in Draft Translation of Selenium Tissue Criterion Elements to Site-Specific Water Column Criterion Elements for California Version 1, August 8, 2018	Derived on a site-specific basis from Monthly Average Exposure element using the following equation: $WQC_{int} = \frac{WQC_{30-day} - C_{bkgnd}(1 - f_{int})}{f_{int}}$
Duration	Instantaneous measurement ⁶	Instantaneous measurement ⁶	Instantaneous measurement ⁶	30 days	Number of days/month with an elevated concentration
Frequency	Not to be exceeded	Not to be exceeded	Not to be exceeded	Not more than once in three years on average	Not more than once in three years on average

Proposed CA Se Rule: Criterion Footnotes

1. Fish Tissue Elements Are Expressed As Steady-state.

2. Fish Egg-ovary Supersedes Any Whole-body, Muscle, Or Translated Water Column Element For That Taxon When Fish Egg-ovary Are Measured. Bird Egg Supersedes Translated Water Column Elements For That Taxon When Both Are Measured.

3. Fish Whole-body Or Muscle Tissue Supersedes The Translated Water Column Element When Both Fish Tissue And Water Concentrations Are Measured.

4. Translated Water Column Values Will Be Based On Dissolved Total Selenium In Water And Will Be Derived Using The Methodology Described In Draft Translation Of Selenium Tissue Criterion Elements To Site-specific Water Column Criterion Elements For California Version 1, August 8, 2018.

5. Where $WqC_{30\text{-day}}$ Is The Water Column Monthly Element Derived Using The Methodology Described In Draft Translation Of Selenium Tissue Criterion Elements To Site-specific Water Column Criterion Elements For California Version 1, August 8, 2018, C_{bkgrnd} Is The Average Background Selenium Concentration, And F_{int} Is The Fraction Of Any 30-day Period During Which Elevated Selenium Concentrations Occur, With F_{int} Assigned A Value ≥ 0.033 (Corresponding To 1 Day).

6. Fish Tissue And Bird Tissue Data Provide Instantaneous Point Measurements That Reflect Integrative Accumulation Of Selenium Over Time And Space In Bird Or Fish Population(s) At A Given Site.

Proposed CA Se Rule: Criterion Summary

Proposal for California is:

EPA's 2016 CWA 304(a) criterion, with

**→ addition of a bird-egg criterion element, and
→ replacement of water column elements with the
Performance-Based Approach (PBA)**

**→ Elements are tiered, with tissue superseding
water column for same taxon.**

6

Proposed CA Se Rule: Criterion Water Column Elements

Performance-Based Approach (PBA) Draft Translation Document

Two Methods Available:

1. Mechanistic Modeling Approach – Trophic Transfer of Se through food web;
or
2. Empirical Bioaccumulation Factor (BAF) Approach – site-specific relationship b/w water & tissue Se concentrations

Proposed CA Se Rule: Proposed Options & Request for Comment

Preamble Requests Comment on Options:

1. As proposed in Footnote aa with the PBA;
2. Appropriateness of & ideas for the PBA on a large scale;
3. As proposed *with an option* to use either the PBA or the CWA 304(a) lentic/lotic water column elements;
4. As proposed but *instead of* the PBA, the CWA 304(a) lentic/lotic water column elements;
5. Instead of one criterion for AL & WL, two criteria, one for AL uses (using fish tissue) and one for WL uses (using bird egg tissue), with either the PBA or lentic/lotic water column elements (or variations of using either/both PBA and lentic/lotic elements).

Proposed CA Se Rule: Comment Period

PUBLIC COMMENTS

→ COMMENT PERIOD IS 60 DAYS, STARTING ON DATE OF FR PUBLICATION, DEC 13, 2018

→ SUBMIT WRITTEN COMMENTS THROUGH REGULATIONS.GOV, FOR DOCKET ID NO. EPA-HQ-OW-2018-0056

Proposed CA Se Rule: Public Hearings

**TWO PUBLIC HEARINGS TO PROVIDE OPPORTUNITY
FOR ORAL COMMENT:**

→ TUESDAY, JANUARY 29, 2019, 9 – 11 AM PT

→ WEDNESDAY, JANUARY 30, 2019, 4 – 6 PM PT

REGISTER AT EPA WEBSITE: LINK IN NOTICE & PREAMBLE

10

Proposed CA Se Rule: Next Steps

- ➔ **EPA WILL CONSIDER ALL PUBLIC COMMENTS, WRITTEN AND ORAL**
- ➔ **FOCUS ON COMMENTS / RESPONSES TO OPTIONS PRESENTED**
- ➔ **ENDANGERED SPECIES ACT CONSULTATION**

11

Proposed CA Se Rule: Next ESA Steps

Consent Decree Requires:

→ Initiation of Consultation No Later Than 9 Months From Date of Proposal

→ EPA to Finalize the Rule within 6 Months of the later of:

1. EPA's No Effect Determination;

or

2. Services' Concurrence On EPA's "NLAA" Biological Evaluation;

or

3. Services' Biological Opinion Concluding Formal Consultation.

Proposed CA Se Rule: Summary

NEXT CONFERENCE CALL

INFORMAL SPECIES LISTS

IMPORTANT LITERATURE FOR EPA TO CONSIDER

13